APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,390	09/26/2003	William Voorhees	03-0961	8526

24319　　　7590　　07/30/2007	EXAMINER	
LSI CORPORATION	CHEA, PHILIP J	
1621 BARBER LANE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/672,390	VOORHEES ET AL.
	Examiner	Art Unit	
	Philip J. Chea	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 March 2007</u>.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-12,14 and 16-20* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-12,14 and 16-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Detailed Action

This Office Action is in response to the communication filed March 09, 2007.

Drawings

1.   The examiner has withdrawn all objections to the drawings in response to the applicant's

amendments.

Specification

2.   The examiner has withdrawn all objections to the specification in response to the

examiner's amendments.

Claim Objections

3.   The examiner has withdrawn all objections to the specification in response to the

examiner's arguments.

Claim Rejections - 35 USC § 101

4.   The examiner has withdrawn all rejections under USC 101 to the specification in

response to the examiner's amendments.

Response to Arguments

5.   Applicant's arguments filed March 07, 2007 have been fully considered but they are not

persuasive.

A.   Summary of Arguments

In the amendment the applicant argues the rejections of claims 1-26 for the following reasons:

1.   The applicant has asserted that each independent claim recites statutory subject matter

and would like to traverse the 101 rejections of claims 1-5, 7, 11-20, and 24-26.

2.   The applicant suggests that the prior art of Beckett et al (Pub # US 2005/0015532) does

not explicitly teach the system of claims 1-9.

3.   The applicant suggests that the prior art of Beckett et al (Pub # US 2005/0015532) does

not explicitly teach the system of claims 10-12. The applicant has cancelled claim 13.

4.   The applicant has also stated that the prior art of Grabauskus et al (Pub# US

2003/0076788) does not explicitly teach the system of claims 14 and 16-20. The applicant has

cancelled claim 15.

B.   Response to Arguments

1.   In regards to the applicant's remarks, the examiner has withdrawn all rejections under 35

USC 101.

2.   Applicant's arguments with respect to claims 1-9 have been fully considered but they are

not persuasive. The applicant argues that Beckett et al fails to teach an automated procedure for

configuring the routing attributes for each port, but it is well known that SAS port control

procedures (shown in e.g. [0039]) are carried out automatically once embedded in a SAS

domain.

3.   Applicant's arguments filed March 09, 2007, with respect to claims have been fully

considered but they are not persuasive. Claims 10-12 have been further rejected as being

anticipated by Bakke et al (Pub # US 2005/0071532).

4.   Applicant's arguments filed March 09, 2007, with respect to claims have been fully

considered and are persuasive, thus claims 14 and 16-20 have been further rejected as being

anticipated by Cidon et al (Pat # US 5,579,480).

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs
of 35 U.S.C 102 that form the basis for the rejections under
this section made in this Office action:

       A person shall be entitled to a patent unless - -

(e) the invention was described in (1) an application for patent,
published under section 122(b), by another filed in the United
States before the invention by the applicant for patent or (2) a
patent granted on an application for patent by another filed in
the United States before the invention by the applicant for
patent, except that an international application filed under the
treaty defined in section 351(a) shall have the effects for
purposes of this subsection of an application filed in the United
States only if the international application designated the
United States and was published under Article 21(2) of such
treaty in the English language.

7.   Claims 1 and 2 are rejected under 35 USC 102 (e) as being anticipated by Beckett et al

(Pub # US 2005/0015532).

With respect to claim 1 Beckett et al teach a method of configuring routing attributes of

ports within an SAS domain, comprising: automatically discovering devices of the SAS network

domain (see e.g. [0039], which teaches that an integrated circuit may be capable of discovering

one or more devices for communication in a SAS domain); automatically discovering ports of

the discovered devices (see e.g. [0036], which teaches that circuitry embedded in the SAS

domain may implement and carry out SAS port control procedures); and automatically

configuring routing attributes of discovered ports (see e.g. [0036], which teaches that signals are

embedded in the SAS domain for the transmission of signals for carrying out ports control

protocols).

With respect to claim 2 Beckett et al teach a method wherein the steps of discovering

devices, discovering ports and configuring ports each include a step of exchanging SMP

messages (see e.g. [0035], which teaches that the data link layer circuitry may include an SMP

link layer).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103 which forms
the basis for all obviousness rejections set forth in this
Office action:

A patent may not be obtained though the invention is not
identically disclosed or described as set forth in section 102
of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the
subject matter as a whole would have been obvious at the time
the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall
not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies
as prior art only under subsection (f) or (g) of section 102 of
this title, shall not preclude patentability under this section
where the subject matter and the claimed invention were, at the
time the invention was made, owned by the same person or subject
to an obligation of assignment to the same person.

9.   Claim 3 is rejected under 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub#

US 2005/0015532) in view of Elliott et al (Pub # US 2005/0066100)

In reference to claims 3 Beckett et al (Pub# US 2005/0015532) teach a method for

discovering ports and configuring ports including a step of exchanging SMP messages (see e.g.

[0035], as claimed).

Beckett et al explicitly teaches the limitations as disclosed above except for configuring

routing table information within devices of the SAS network domain wherein said routing table

information is sufficient to identify paths in the SAS network domain to enable the exchange of

SMP messages.

The general concept configuring routing table information within devices of the SAS network domain wherein said routing table information is sufficient to identify paths in the SAS network domain to enable the exchange of SMP messages is well known within the art as illustrated by Elliott et al which discloses a method including limitations for configuring routing table information within devices (see e.g. [0013], which implies that an expander receives information packets from a port and routes the information packets and SMP commands through another port in the SAS domain).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beckett et al to include the use of routing table information within devices of the SAS network domain wherein said routing table information is sufficient to identify paths in the SAS network domain to enable the exchange of SMP messages as taught by Elliott et al in order to improve upon topology techniques in a SAS network, as implied in e.g. [0013], lines 1-11 of Elliott et al.

10.   Claim 4 is rejected under 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub# US 2005/0015532) in view of Doelz (Pat # US 4,156,798)

In reference to claim 4 Beckett et al (Pub# US 2005/0015532) teach a method for discovering ports and configuring ports including a step of exchanging SMP messages (see e.g. [0035], as claimed).

Beckett et al explicitly teaches the limitations as disclosed above except for configuring routing table information to identify all paths for exchange of messages within the SAS network domain.

The general concept configuring routing table information to identify all paths for

exchange of messages within the SAS network domain is well known within the art as illustrated

by Doelz which discloses a method including limitations for configuring routing table

information to identify paths for exchange of messages within the SAS network domain (see col.

170, lines 36-47, which implies that each network processor includes a routing table for

indicating paths that messages might be exchanged).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of configuring routing table information to

identify all paths for exchange of messages within the SAS network domain as taught by Dolez

in order to improve upon path detection in the SAS, as implied in col. 170, lines 36-45 of Doelz.

11.   Claim 5 is rejected under 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub#

US 2005/0015532) in view of Doelz (Pat # US 4,156,798)

In reference to claim 5 Beckett et al (Pub# US 2005/0015532) teach a method including

limitations for discovering devices, discovering ports, and configuring ports (see e.g. [0039], as

claimed).

Beckett et al explicitly teaches the limitations as disclosed above except for wherein the

step of completely configuring is substantially integrated with the steps of discovering devices,

ports, and configuring ports.

The general concept of integrating a configured routing table with the steps of

discovering devices, discovering ports, and configuring ports is well known within the art as

illustrated by Doelz who discloses a method including limitations for configuring routing table

information to identify paths for exchange of messages (see col. 170, lines 36-47) and

discovering devices (see col. 8, lines 6 – 22, which implies that a host adapter provides

communication between a host machine in the network and a plurality of terminal devices),

ports, and configuring ports (see col. 8, lines 53-65, which implies that the network has a two

port buffer memories for providing communication between different elements of the

communication network).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of a limitation wherein the step of

completely configuring is substantially integrated with the steps of discovering devices, ports,

and configuring ports in order to systematically control the flow of communication in a network,

as implied in col. 8 lines 6-65 of Doelz.

12.   Claim 6 is rejected under 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub#

US 2005/0015532) in view of Smith et al (Pat # US 5,335,227)

In reference to claim 6, Beckett et al (Pub# US 2005/0015532) teach a method including

limitations for discovering devices, discovering ports, and configuring ports (see e.g. [0039]).

Beckett et al explicitly teaches the limitations as disclosed above except for transmitting

an SMP Discover request from a first device to a neighboring device of the first device and

receiving an SMP Discover response in said first device from said neighboring device

identifying the other devices coupled to ports of said neighboring device.

The general concept of transmitting an SMP Discover request from a first device to a

neighboring device of the first device and receiving an SMP Discover response in said first

device from said neighboring device identifying the other devices coupled to ports of said

neighboring device is well known in the art as illustrated by Smith et al which discloses a

method including limitations for transmitting an SMP Discover request from a first device to a

neighboring device of the first device (see col. 3, lines 14 – 34 & lines 59 – 68, which implies

that a device coupled to one of a plurality of ports may communicate with a device coupled to

another port within the network that is tied to a conductor that indicates which port a device,

such as a terminal, can be connected) and a limitation for receiving an SMP Discover response in

said first device from said neighboring device identifying the other devices coupled to ports of

said neighboring device (see col. 6, lines 44 - 62, which implies that the plurality of devices

connected to each port provides an SMP frame including a device address for each device

coupled to one of a plurality of ports).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of a limitation for transmitting an SMP

Discover request from a first device to a neighboring device of the first device and receiving an

SMP Discover response in said first device from said neighboring device identifying the other

devices coupled to ports of said neighboring device in order to provide for effective quality of

service in a network, as implied in col. 3, lines 14 – 68 of Smith et al.

13.   Claim 7 is rejected 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub# US

2005/0015532) in view of Clayton et al (Pub # US 2005/0015655).

In reference to claim 7, Beckett et al teach a method including a limitation of

automatically discovering ports of the discovered devices (see e.g. [0036], which implies that

circuitry embedded in the SAS domain may implement and carry out SAS port control

procedures).

Beckett et al explicitly teach the limitations as disclosed above except for transmitting an

SMP report general request from a first device to a neighboring device of the first device and

receiving an SMP report general response in said first device from said neighboring device

identifying the number of ports within said neighboring device.

The general concept of means for transmitting an SMP Report General request from a

first device to a neighboring device of the first device and receiving a SMP report general request

from a first device from said neighboring device identifying the number of ports within a

neighboring device is well known in the art as illustrated by Clayton et al, which teaches means

for transmitting an SMP Report General request from a first device to a neighboring device of

the first device (see claim 5, which implies a SMP message that is transmitted between stations

each comprising a SAS expander and specifying ports in between each station, as shown in claim

1), receiving a SMP report general request from a first device from said neighboring device

identifying the number of ports within a neighboring device (see claim 1, which implies that the

messages sent between intermediate stations are used to identify ports of each station).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of receiving a SMP report general request

.from a first device from said neighboring device identifying the number of ports within a

neighboring device and receiving a SMP report general request from a first device from said

neighboring device identifying the number of ports within a neighboring device in order to add

the advantage of exchanging data between devices implementing a SAS protocol, as implied in

sec. [0015], lines 2-8 of Clayton et al.

14.   Claim 8 is rejected 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub# US

2005/0015532) in view of Elliott et al (Pub# US 2005/0066100).

In reference to claim 8 Beckett et al teach a method including the limitation for

automatically configuring routing attributes of discovered ports (see e.g. [0036], which implies

that signals are embedded in the SAS domain for the transmission of signals for carrying out

ports control protocols).

Beckett et al explicitly teaches the limitations as disclosed above except for transmitting

an SMP request from a first device to a second device wherein the SMP request includes vendor

unique information identifying a routing attribute to be configured for port of said second device.

The general concept of transmitting an SMP request from a first device to a second

device wherein the SMP request includes vendor unique information identifying a routing

attribute to be configured for port of said second device is well known in the art as illustrated by

Elliott et al, which teaches a method including the limitation for transmitting an SMP request

from a first device to a second device wherein the SMP request includes vendor unique

information identifying a routing attribute to be configured for port of said second device (see

e.g. [0021- 0024], which implies that each expander in a SAS network may issue SMP

commands to phys of other expanders through a routing controller, in order to configure routing

attributes of an expander).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of a limitation transmitting an SMP request

from a first device to a second device wherein the SMP request includes vendor unique

information identifying a routing attribute to be configured for port of said second device in

order to maximize routing techniques in a network, as implied in e.g. [0021] of Elliott et al.

15.   Claim 9 is rejected under 35 U.S.C. 103 as being unpatentable over Beckett et al (Pub#

US 2005/0015532) in view of Bearden et al (Pub# US 2003/0097438).

In reference to claim 9, Beckett et al teach a method including the limitation for

automatically configuring routing attributes of discovered ports (see e.g. [0036]).

Beckett et al explicitly teaches the limitations as disclosed above except for traversing

devices of the SAS network domain to configure routing attributes of ports of devices of the SAS

network domain.

The general concept of traversing devices of the SAS network domain to configure

routing attributes of ports of devices of the SAS network domain is well known in the art as

illustrated by Bearden et al, which teaches a method including the limitation for traversing

devices in a network to configure connections between ports in order to discover the topology of

a network (see e.g. [0090], which implies that the topology of the network is discovered by using

a layer path to traverse devices hidden in a layer of the network).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beckett et al to include the use of a limitation traversing devices of the SAS

network domain to configure routing attributes of ports of devices of the SAS network domain in

order to improve upon routing techniques in a network, as implied in e.g. [0090] of Bearden et

al.

16.   Claims 10 - 12 are rejected under 35 USC 103 as being unpatentable over Bakke et al

(Pub # US 2005/0071532) in view of Jones et al (Pat # US 6,301,642).

With respect to claims 10-12, Bakke et al teach a system of a plurality of expander

devices providing a plurality of ports within the domain wherein each port may have an

associated routing attribute (see e.g. [0013], lines 2-5, which teaches multiple expander devices

and multiple ports, where each port of each edge expander has its own routing function for

communication between each SAS device); a domain control element coupled to at least one of

the plurality of expander devices operable to configure the routing attributes of the plurality of

ports (see e.g. [0033], lines 7-9, which teaches an initiator adapter is implemented to control the

configuration contents of the ports on each device), the domain control element is further

operable to use the configured routing attributes to automatically generate complete routing

tables used by the plurality of expander devices (see e.g. [0009], lines 8-13, which implies that

each fan-out expander contains a routing table that is generated without intervention), a SAS

initiator device coupled to at least one of a plurality of expander devices (see e.g. [0017], lines 4-

7, which shows a plurality of SAS initiators coupled to a plurality of expander devices in the

SAS network), and a SAS expander device coupled to at least one of the plurality of expander

devices (see e.g. [0018], lines 9-14, which implies the SAS device is connected to one of the

plurality of expander devices).

Bakke et al explicitly teaches the limitations as disclosed above except for the domain

control element being operable to configure the routing attributes of the ports by traversing port

connections between the expander devices.

The general concept of the domain control element being operable to configure the

routing attributes of the ports by traversing port connections between the expander devices is

well known in the art as illustrated by Jones et al, which teaches a system including the limitation

for traversing port connections between the expander devices (see spec, col. 8, lines 4-10, which

implies control of traversal of ports between devices).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Bakke et al to include the use of the domain control element being operable

to configure the routing attributes of the ports by traversing port connections between the

expander devices, in order to add the advantage of controlling access to a plurality of ports, as

implied in col. 4, lines 1-3 of Jones et al.

17.   Claims 14 and 16 are rejected under 35 USC 103 as being unpatentable over Cidon et al

(Pat # US 5,579,480) in view of Kim (Pub # US 2003/0217212).

With respect to claims 14 and 16, Cidon et al teach a system of discovering topology of a

network by traversing port connections between devices (see co. 8, lines 55-60, which implies

traversed messages for port IDs of a multiport device (shown in col. 5, lines 27-32) are

implemented within the prior art); means for configuring routing attributes associated with ports

of devices of the domain in response to discovery of the topology of the domain (see col. 7, lines

5-9, which implies control messages for the topology/port configuration of the network), means

for configuring routing tables using the configured routing attributes, the routing tables used by

devices of the domain (see col. 7, lines 5-9, which implies virtual connection table is

implemented to store control messages for each port within the multiport device), and the

traversal of port connections occurring only once (see col. 6, lines 53-55, which shows that a control message for traversal of a cluster of ports nodes occurs only once per switch).

Cidon et al explicitly teaches the limitations as disclosed above except for the topology embodiments occurring in a SAS network.

The general concept of a SAS network domain with means for discovering topology is well known in the art as illustrated by Kim, which teaches a system including the limitation for traversing port connections between the expander devices (see e.g. [0042], lines 10-17, which implies topology discovery in a small computer systems interface network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cidon et al to include the use of a SAS network domain with means for discovering topology, in order to add the advantage of implementing a device discovery interface in a network, as implied in sec. [0038], lines 1-3 of Kim.

18.　　Claims 17 - 20 are rejected under 35 USC 103 as being unpatentable over Cidon et al (Pat # US 5,579,480) in view of Kim (Pub # US 2003/0217212), further in view of Clayton et al (Pub # US 2005/0015655).

With respect to claims 17-20, Cidon et al teach a system of discovering topology of a network by traversing port connections between devices (see co. 8, lines 55-60, which implies traversed messages for port IDs of a multiport device (shown in col. 5, lines 27-32) are implemented within the prior art); means for configuring routing attributes associated with ports of devices of the domain in response to discovery of the topology of the domain (see col. 7, lines 5-9, which implies control messages for the topology/port configuration of the network), means

for configuring routing tables using the configured routing attributes, the routing tables used by

devices of the domain (see col. 7, lines 5-9, which implies virtual connection table is

implemented to store control messages for each port within the multiport device), and the

traversal of port connections occurring only once (see col. 6, lines 53-55, which shows that a

control message for traversal of a cluster of ports nodes occurs only once per switch). Kim

teaches a system including the limitation for traversing port connections between the expander

devices (see e.g. [0042], lines 10-17, which implies topology discovery in a small computer

systems interface network)

Cidon et al and Kim explicitly teach the combined system as disclosed except for means

for exchanging SMP messages between devices of the domain to identify devices and to identify

ports of the devices and to identify connections between the ports of the devices, means for

exchanging an SMP Report General request and response messages to identify ports of devices

and connections between ports of devices, means for exchanging SMP Discover request and

response messages to devices of the domain, and means for transmitting an SMP message having

vendor unique information from a first device to a second devices to instruct the second device to

configure the routing attribute of a port of the second device.

The general concept of means for exchanging SMP messages between devices of the

domain to identify devices and to identify ports of the devices and to identify connections

between the ports of the devices, means for exchanging an SMP Report General request and

response messages to identify ports of devices and connections between ports of devices, means

for exchanging SMP Discover request and response messages to devices of the domain, and

means for transmitting an SMP message having vendor unique information from a first device to

a second devices to instruct the second device to configure the routing attribute of a port of the

second device is well known in the art as illustrated by Clayton et al, which teaches a system

including the limitation for means for exchanging SMP messages between devices of the domain

to identify devices and to identify ports of the devices and to identify connections between the

ports of the devices (see claim 5, which implies a SMP message that is transmitted between

stations each comprising a SAS expander and specifying ports in between each station, as shown

in claim 1), means for exchanging an SMP Report General request and response messages to

identify ports of devices and connections between ports of devices (see claim 1, which implies

that the messages sent between intermediate stations are used to identify ports of each station),

means for exchanging SMP Discover request and response messages to devices of the domain

(see e.g. [0042], lines 2-8, which implies SMP messages exchanged between stations include

header information to identify each respective station), and means for transmitting an SMP

message having vendor unique information from a first device to a second devices to instruct the

second device to configure the routing attribute of a port of the second device (see claim 6,

which implies routing tables are implemented for SMP messages transmitted between stations

with header information specifying each station).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Cidon et al and Kim to include the use of means for exchanging SMP

messages between devices of the domain to identify devices and to identify ports of the devices

and to identify connections between the ports of the devices, means for exchanging an SMP

Report General request and response messages to identify ports of devices and connections

between ports of devices, means for exchanging SMP Discover request and response messages to

devices of the domain, and means for transmitting an SMP message having vendor unique information from a first device to a second device to instruct the second device to configure the routing attribute of a port of the second device, in order to add the advantage of exchanging data between devices implementing a SAS protocol, as implied in sec. [0015], lines 2-8 of Clayton et al.
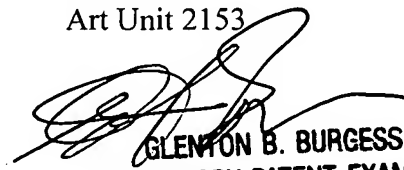
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Philip J Chea
Examiner
Art Unit 2153

PJC 7/17/07

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100